

## **Executive Summary**

### **A New Undergraduate Nuclear Engineering Track within the VCU Department of Mechanical Engineering**

The outcome of the proposed grant is the development of a new undergraduate track in Nuclear Engineering within the department of Mechanical Engineering at Virginia Commonwealth University. Sponsored in part by Dominion Resources (One of the Nations largest producers and transporters of energy that owns and operates four nuclear power plants in Virginia and several more elsewhere in other states), a masters degree program in Nuclear Engineering has commenced at VCU during the fall 2007 semester. Twenty-five students were admitted to the first class, a strong indication of current interest in Nuclear Engineering education. Instructors for the masters program are a mix of full time mechanical engineering faculty and affiliate faculty, with the expertise in Nuclear Engineering, drawn from Dominion and the University of Virginia, which, following a national trend, disbanded its own Nuclear Engineering program some years ago. Nuclear Power generation is witnessing a strong comeback, and a study educational infrastructure is needed once again. Following the recently initiated masters program in Nuclear Engineering at VCU, the next logical step is to develop and offer a bachelors in the same discipline. However, more resources will be required for the new endeavor including the hiring of full time faculty specializing in Nuclear Power generation. The proposed grant will be used to develop and complete curriculum necessary to offer at a first track within the existing bachelors degree in mechanical Engineering, then ultimately a Bachelors degree in Nuclear Engineering. It is the intention of the university to advance the Nuclear engineering program and to provide the resources needed for its success, including the addition of new faculty necessary to sustain a healthy degree program. If successful, both the graduate and undergraduate Nuclear Engineering programs at VCU will be the only ones of there type in the commonwealth of Virginia.